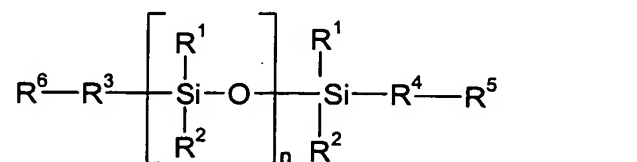


Claims

1. Aqueous dispersion of a polyurethane, obtainable by reacting polyisocyanates and isocyanate-reactive compounds in miniemulsion, wherein the isocyanate-reactive compounds are at least in part polysiloxanes of the formula I



where

- 10 R^1 and R^2 independently of one another are a monovalent hydrocarbon radical having not more than 20 carbon atoms, which if appropriate may also contain heteroatoms such as O or N,
- 15 R^3 and R^4 independently of one another are a single bond or a divalent hydrocarbon radical having not more than 20 carbon atoms, which if appropriate may also contain heteroatoms such as O or N,
- 20 R^5 and R^6 independently of one another are a group OH, SH, NH_2 or NHR^7 and R^7 is a monovalent hydrocarbon radical having not more than 20 carbon atoms, which if appropriate may also contain heteroatoms such as O or N,
- and n is an integer from 1 to 100.

- 25 2. Aqueous dispersion according to claim 1, wherein

R^1 and R^2 independently of one another are a $\text{C}_1\text{-C}_4$ alkyl group,

- 30 R^3 and R^4 independently of one another are a single bond or a $\text{C}_1\text{-C}_6$ alkylene group, and

R^5 and R^6 independently are a group OH, SH, NH_2 or NHR^7 and R^7 is a $\text{C}_1\text{-C}_4$ alkyl radical.

- 35 3. Aqueous dispersion according to one of claims 1 or 2, wherein the polyurethane has been synthesized from

a) polyisocyanates,

- b) polyols of which
- 5 b₁) 10 to 100 mol%, based on the total amount of the polyols (b), have a molecular weight of from 500 to 5000 g/mol,
- b₂) 0 to 90 mol%, based on the total amount of the polyols (b), have a molecular weight of from 60 to 500 g/mol,
- 10 c) monomers other than the monomers (a) and (b), having at least one isocyanate group or at least one group which is reactive toward isocyanate groups, and further carrying at least one hydrophilic group or one potentially hydrophilic group,
- 15 d) if appropriate further compounds, other than the monomers (a) to (c), having at least 2 isocyanate-reactive groups, of which at least one group is a primary or secondary amino group or a mercapto group,
- 20 e) if appropriate, monovalent compounds, other than the monomers (a) to (d), having a reactive group which is an alcoholic hydroxyl group, a primary or secondary amino group or an isocyanate group.
- 25 4. Aqueous dispersion according to one of claims 1 to 4, wherein from 1 to 90% by weight of the polyurethane is composed of polysiloxanes of the formula I.
5. Aqueous dispersions comprising a polyurethane according to one of claims 1 to 4 and at least one further polymer, in particular a polymer obtainable by free-radical addition polymerization.
- 30 6. Process for preparing aqueous polyurethane dispersions by reacting polyisocyanates and compounds containing isocyanate-reactive groups in aqueous miniemulsion, wherein the isocyanate-reactive compounds are at least in part polysiloxanes of the formula I.
- 35 7. Process according to claim 6, wherein the miniemulsion has a monomer droplet size of from 50 to 500 nm.
- 40 8. Process according to one of claims 6 or 7, wherein the polysiloxanes are prepared by reaction of their starting compounds in situ before, during or after the preparation of the miniemulsion.

9. Use of the aqueous dispersion according to one of claims 1 to 5 in coating compositions, adhesives, impregnating compositions, sealants or cosmetic preparations.
- 5 10. Use of the aqueous dispersion according to one of claims 1 to 5 as foam stabilizers in polyurethane foams.